



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0410; Product Identifier 2018-CE-059-AD; Amendment 39-19644; AD 2019-10-05]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited (Type Certificate Previously Held by Bombardier Inc.; de Havilland, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Viking Air Limited (Viking) Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as occurrences of excessive wear of elevator cables at pulley location station (STA) 270.3. The FAA is issuing this AD to require actions to address the unsafe condition on these products.

DATE: This AD is effective [INSERT DATE 20 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0410; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (telephone (800) 647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Darren Gassetto, Aerospace Engineer, Mechanical Systems and Admin Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7323; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada, which is the aviation authority for Canada, has issued AD Number CF-2018-28, dated October 15, 2018 (referred to after this as “the MCAI”), to correct an unsafe condition for all Viking (formerly Bombardier Inc.; de Havilland, Inc.) Models DHC-6-1, DHC-6-100, DHC-6-110, DHC-6-200, DHC-6-210, DHC-6-300, DHC-6-310, DHC-6-320, and DHC-6-400 airplanes. The MCAI states:

There have been several occurrences of excessive wear of elevator cables at the STA 270.3 pulleys. In one case the cable failed in flight leading to an emergency landing. Viking Air Ltd., (Viking) has determined that excessive wear can be caused by a damaged pulley. Elevator cable wear that is not detected can lead to failure of the cable and loss of control of the aeroplane.

The damage to the elevator control cable is caused by a dent on the pulley on the inside bearing race that is not detectable by direct visual inspection or rotation of the pulley without applied load. The dent in the bearing race prevents free turning of the pulley under certain load conditions, which causes rapid wear of the cable. The dent is caused by wear over an extended period of time due to vibration while the bearing is stationary. This AD requires inspecting the elevator and rudder control cables for abnormal wear at pulley location STA 270.3 and replacing any worn cables and the corresponding pulley. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0410.

Record of Ex Parte Communication

In preparation of AD actions such as notices of proposed rulemaking and immediately adopted final rules, it is the practice of the FAA to obtain technical information and information on the operational and economic impact from design approval holders and aircraft operators. The FAA discussed certain aspects of this AD by email and in person with Viking Air Limited. A copy of each email contact and a summary of each discussion can be found in the rulemaking docket. For information on locating the docket, see “Examining the AD Docket” in ADDRESSES.

Related Service Information

The FAA reviewed Viking DHC-6 Twin Otter Service Bulletin Number: V6/0062, dated July 31, 2017. The service information contains instructions for inspecting the elevator and rudder control cables for abnormal wear at pulley location STA 270.3 and replacing any worn cables and the corresponding pulley.

FAA's Determination and Requirements of the AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this AD because we evaluated all information provided by the State of Design Authority and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because failure of the elevator or rudder control cable in flight could result in loss of control of the aircraft. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason(s) stated above, the FAA finds that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and the FAA did not precede it by notice and opportunity for public comment. The FAA invites you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2019-0410; Product Identifier 2018-CE-059-AD" at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this AD. The FAA will consider all comments received by the closing date and may amend this AD because of those comments.

The FAA will post all comments received, without change, to <http://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

The FAA estimates that this AD will affect 133 products of U.S. registry. The FAA also estimates that it will take about .5 work-hour per product to comply with the basic inspection requirement of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, the FAA estimates the cost of the AD on U.S. operators to be \$5,652.50, or \$42.50 per product.

In addition, the FAA estimates that any necessary follow-on replacement action will take about 3 work-hours and require parts costing \$203 for a cost of \$458 per product. The FAA has no way of determining the number of products that may need these actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

Regulatory Findings

The FAA determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2019-10-05 Viking Air Limited (type certificate previously held by Bombardier Inc.; de Havilland, Inc.): Amendment 39-19644; Docket No. FAA-2019-0410; Product Identifier 2018-CE-059-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 20 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Viking Air Limited (type certificate previously held by Bombardier Inc.; de Havilland, Inc.) Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 27: Flight Controls.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as occurrences of excessive wear of elevator cables at pulley location station (STA) 270.3. The FAA is issuing this AD to prevent failure of the elevator and rudder control cables, which could result in loss of control of the airplane.

(f) Actions and Compliance

Unless already done, do the following actions in paragraphs (f)(1) and (2) of this AD.

(1) Within the next 90 days after the effective date of this AD or upon reaching the life limit for replacing an elevator or rudder control cable, whichever occurs first, inspect the cables for abnormal wear at pulley location STA 270.3. If there is abnormal wear on a cable, before further flight, in addition to replacing the life-limited cable from service, replace the corresponding pulley. For purposes of this AD, abnormal wear is defined as either of the following:

(i) Wear on an individual wire exceeding 40 percent of the original wire size or the blending of worn areas on the adjacent wires exceeding 40 percent; or

(ii) More than three broken wires in a one-inch span of 7 x 7 cable or six broken wires in a one-inch span of 7 x 19 cable.

(2) Within the next 90 days after the effective date of this AD, revise the Airworthiness Limitations section of your maintenance program by adding the following requirements:

(i) At the scheduled replacement of each life-limited elevator and rudder control cable, inspect the cable for abnormal wear at pulley location STA 270.3.

(ii) If there is abnormal wear on the cable at the pulley location, before further flight, in addition to removing the life-limited cable from service, replace the corresponding pulley.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7300; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must instead be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Viking Air Limited's Design Organization Approval (DOA). If approved by the DOA, the approval must include the DAO-authorized signature.

(h) Related Information

(1) Refer to MCAI TCCA AD Number CF-2018-28, dated October 15, 2018, and Viking DHC-6 Twin Otter Service Bulletin Number: V6/0062, dated July 31, 2017, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0410. For Viking Air Limited service information identified in this AD, contact Viking Air

Limited Technical Support, 1959 de Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-bulletins>.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Mechanical Systems and Admin Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: (516) 228-7323; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov.

Issued in Kansas City, Missouri on May 23, 2019.

Melvin J. Johnson
Aircraft Certification Service
Deputy Director, Policy and Innovation Division, AIR-601
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